DOCUMENT RESUME

ED 354 661 EC 301 831

TITLE	Educational Outcomes and Indicators for Students Completing School.
INSTITUTION	National Center on Educational Outcomes, Minneapolis, MN.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	Jan 93
CONTRACT	H159C00004
NOTE	25p.
AVAILABLE FROM	National Center on Educational Outcomes (NCEO), 350 Elliott Hall, 75 East River Rd., University of Minnesota, Minneapolis, MN 55455 ($8).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Data Collection; *Disabilities; Elementary Secondary Education; High School Graduates; Information Sources; *Measurement Techniques; Models; *Outcomes of Education; *Student Educational Objectives
IDENTIFIERS	Aging Out Process; *Educational Indicators

ABSTRACT

This document presents a model of school completion outcomes and the indicators of these outcomes for all students, including students with disabilities. School completion is defined in a number of ways, including Grade 12, end of school, and time of "aging out" of eligibility for educational services. The document includes a conceptual model in which educational resources influence educational opportunity and process, which in turn influence the school completion outcome domains, which have a return influence on both the resources and opportunity/process. Outcome domains include: presence and participation, accommodation and adaptation, physical health, responsibility and independence, contribution and citizenship, academic and functional literacy, personal and social adjustment, and satisfaction. Several outcomes are listed for each domain, and several possible indicators are listed for each outcome, with indicators generally being percentages or rates representing outcomes. Steps toward identifying sources of data for indicators are then outlined. The document concludes with an outline of plans to identify outcomes and indicators for several other developmental levels, a list of contributors to the development of school completion outcomes, and a list of six supporting documents. (JDD)

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Educational Outcomes and Indicators for Students Completing School

NATIONAL CENTER ON EDUCATIONAL OUTCOMES

The College of Education
UNIVERSITY OF MINNESOTA

in collaboration with

National Association of State Directors of Special Education

EC 301831

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January, 1993

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The National Center on Educational Outcomes (NCEO) was established in October, 1990 to work with state departments of education, national policy-making groups, and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education, and St. Cloud State University.

The Center is supported through a Cooperative Agreement with the U.S. Department of Education, Office of Special Education Programs (H159C00004). Opinions or points of view do not necessarily represent those of the U.S. Department of Education or Offices within it.

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Acknowledgments

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Graphic Design
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Educational Outcomes and Indicators for Students Completing School

The current emphasis on educational reform and accountability reflects the public's desire to know the results of education for all America's students. There is great interest in identifying the important outcomes of education and the best indicators of those outcomes.

The **National Center on Educational Outcomes** (NCEO) is working with federal and state agencies to facilitate and enhance the collection and use of data on educational outcomes for students with disabilities. In doing so, it has taken an inclusive approach, identifying a conceptual model of outcomes that applies to all students, not just to students with disabilities. Hundreds of educators, administrators, policymakers, and parents have participated in a consensus building process using this model as a framework to identify key indicators of important educational outcomes for all students.

The purpose of this document is to present the model of school completion outcomes and the indicators of these outcomes for all students in today's schools. "School completion" can be defined in a number of appropriate ways, including Grade 12, end of school, and time of "aging out" of eligibility for educational services. In the pages that follow, you will find:

- A conceptual model of domains and outcomes
- Possible indicators for each outcome
- Steps toward identifying sources of data for indicators

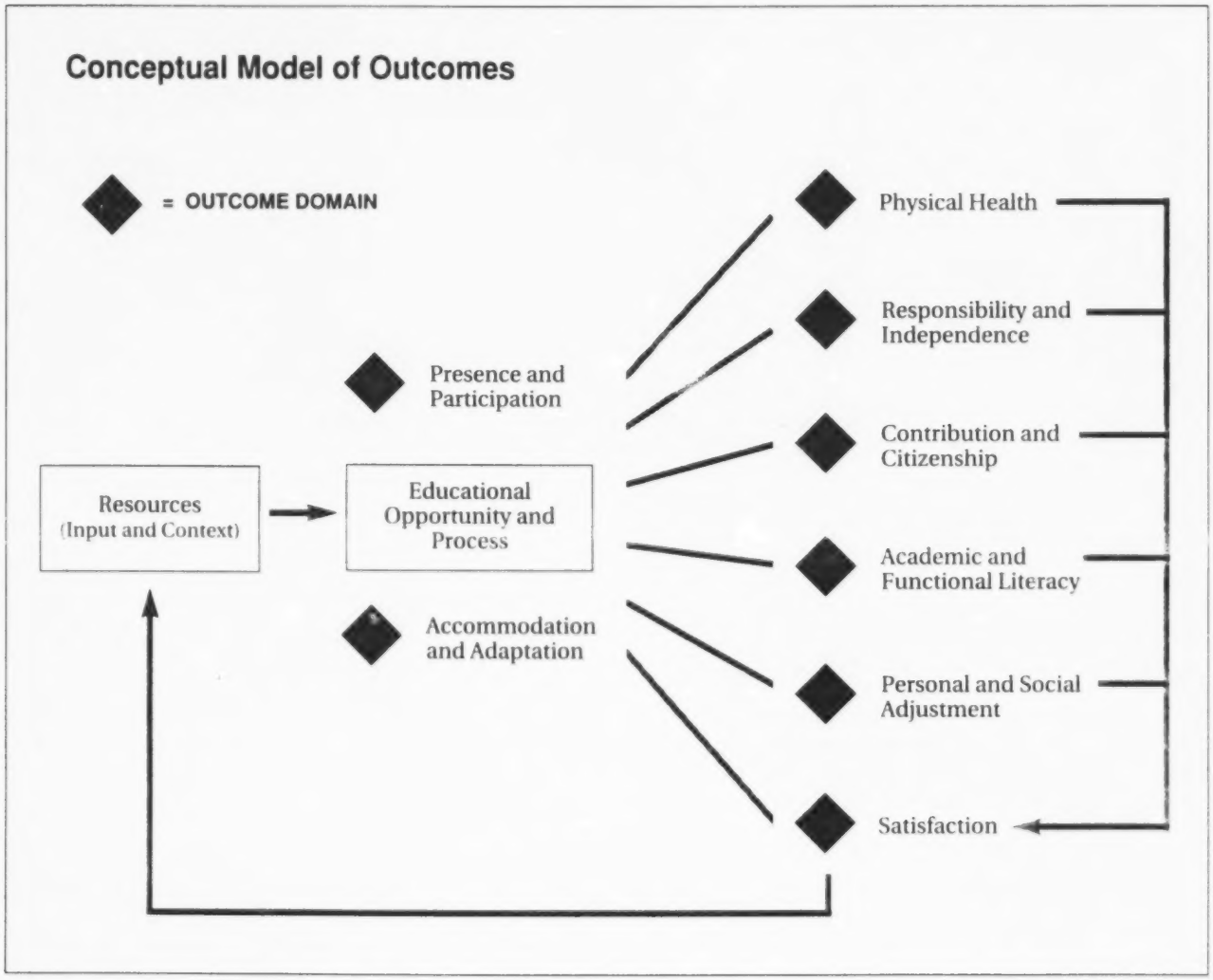
We at the National Center on Educational Outcomes are indebted to many groups and individuals who provided feedback to us (see Contributors listed at the end of this document). We believe that the model and indicators for school completion outcomes presented here will serve as a point from which to extend discussion as policymakers, states, and local school districts identify the important outcomes of education.

Conceptual Model of Domains and Outcomes

The conceptual model depicted below shows the complete educational model, with Educational Resources (Inputs and Contexts) influencing Educational Opportunity and Process. These in turn, influence the Outcome Domains (the shaded areas), which have a return influence on both the resources and opportunity/ process.

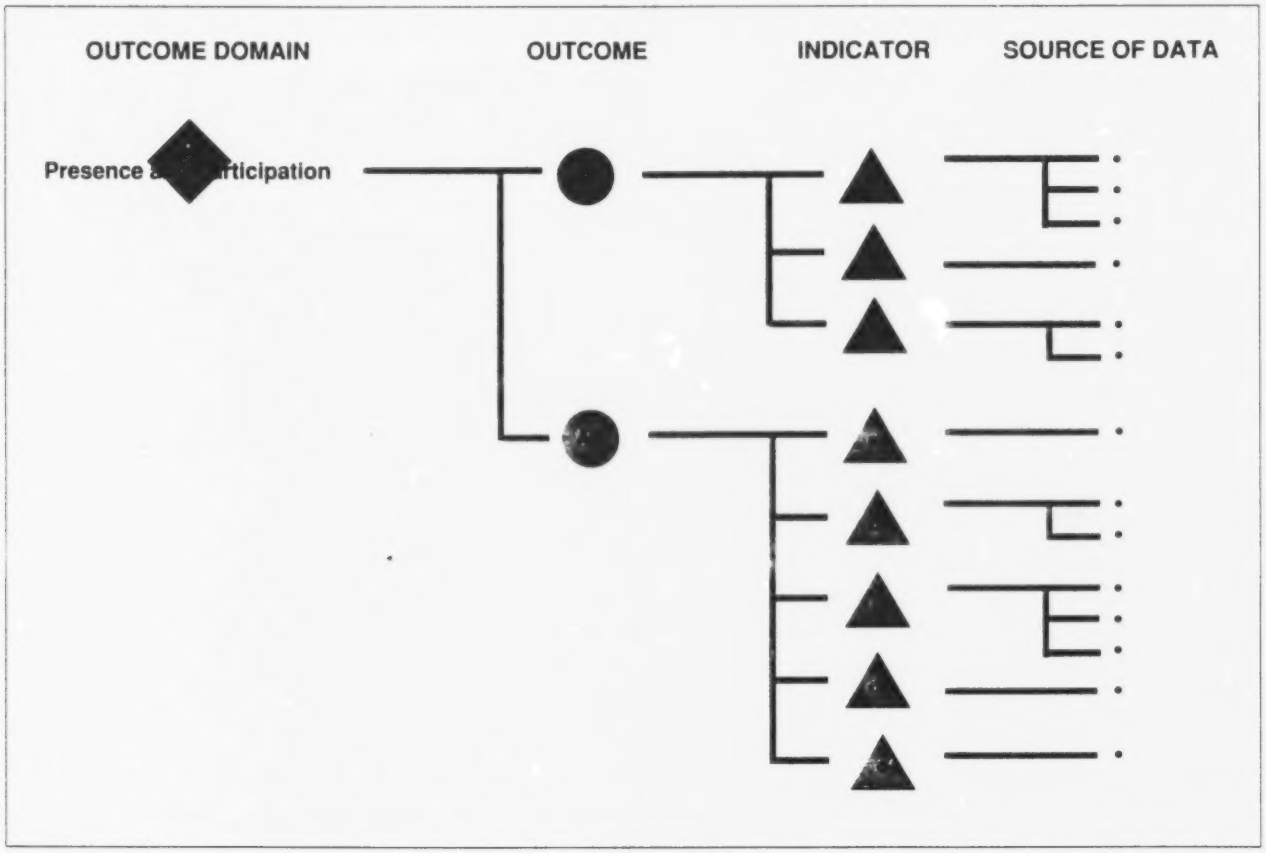
Two of the shaded domains, Presence and Participation, and Accommodation and Adaptation, are placed next to Educational Opportunity and Process. Considerable controversy remains about whether these are true outcomes, part of the process of education, or some type of mediating variables. Yet, generally there is consensus that these aspects need to be measured.

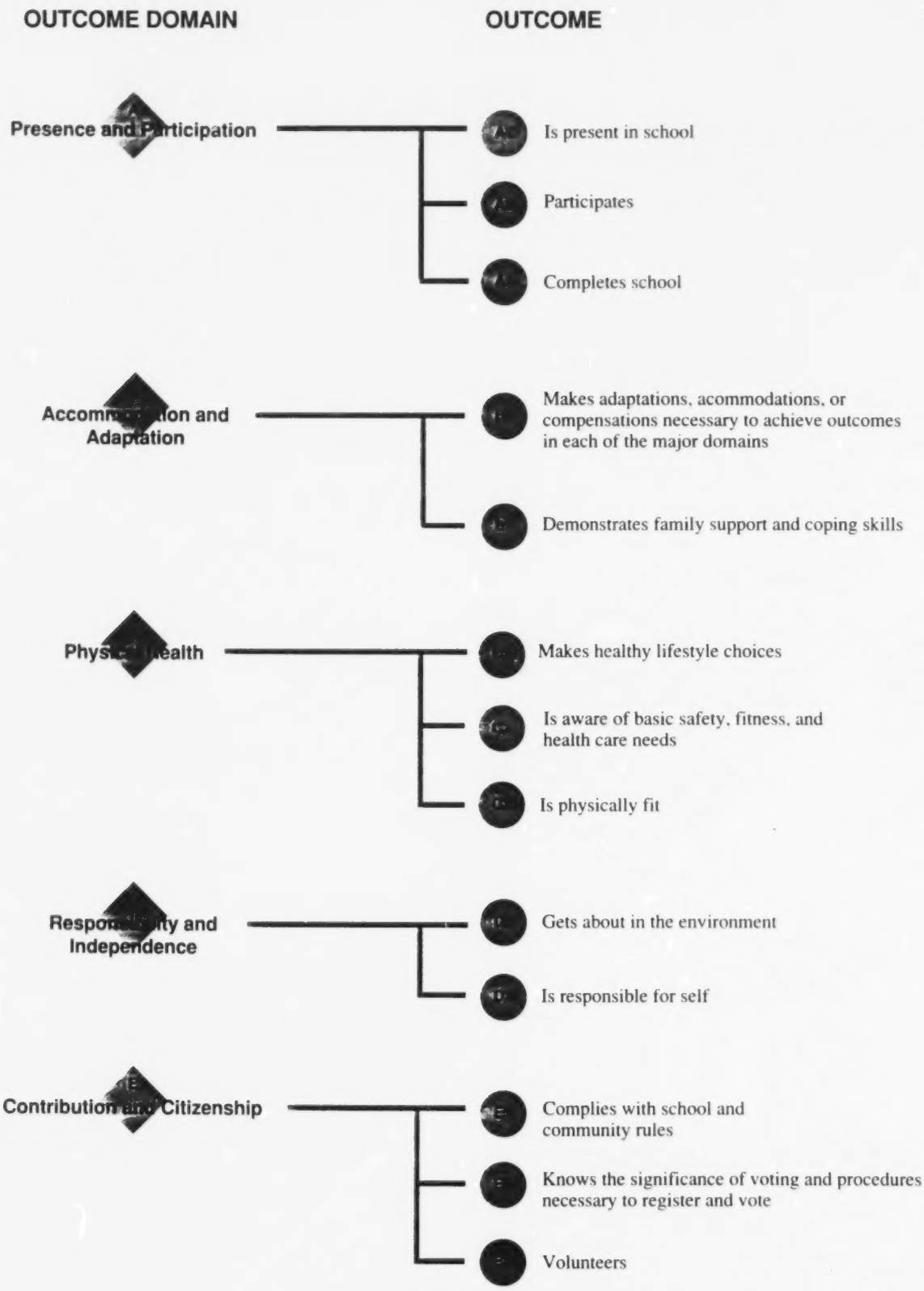
Throughout this document, all eight domains (indicated by ◆) will be treated equally as outcome domains.

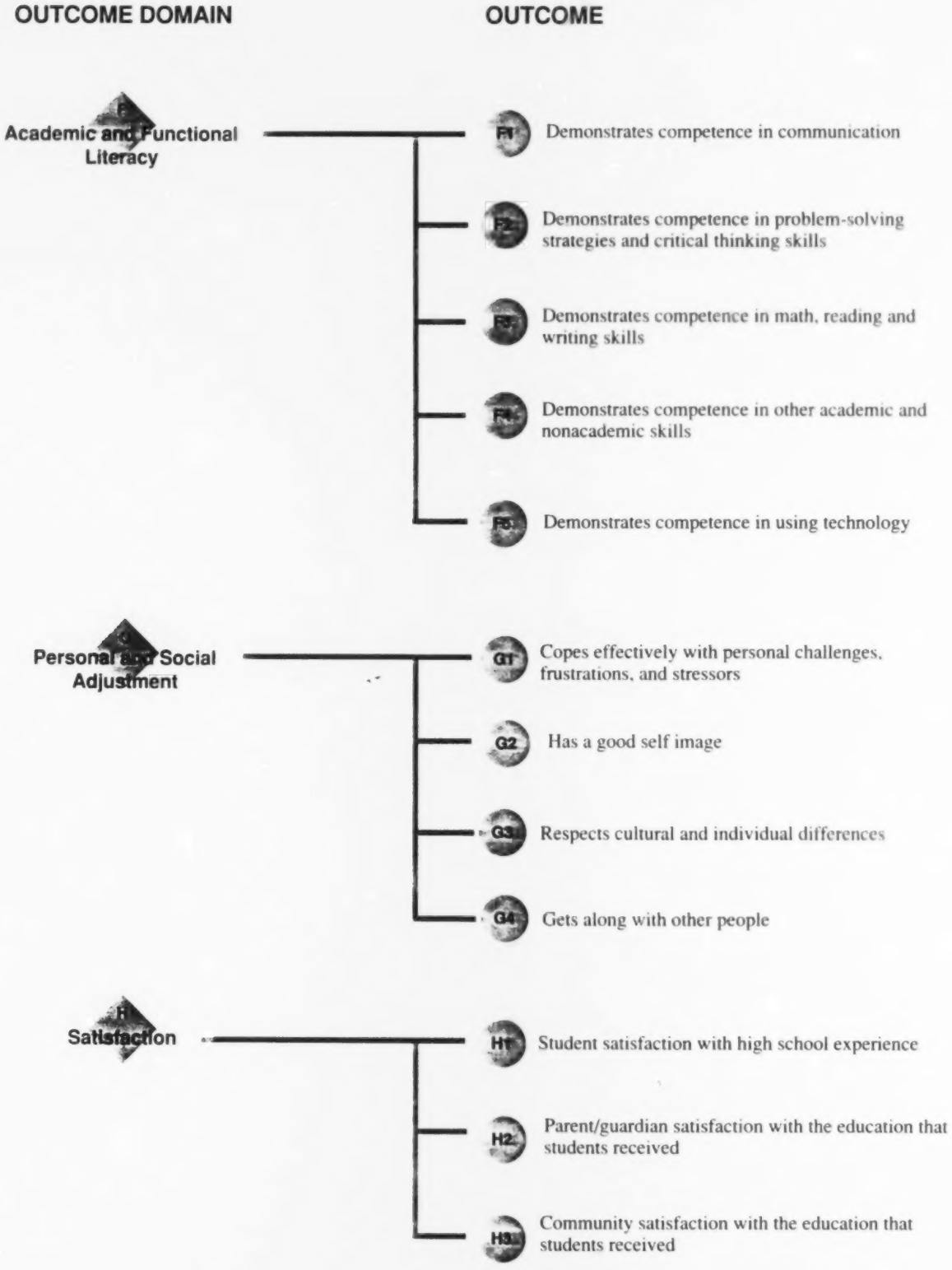


The conceptual model is extended by identifying outcomes, indicators of the outcomes, and finally, sources of data for the indicators. Outcomes are the results of interactions between students and the educational system. Indicators are numbers or other symbolic representations that can be used to determine whether desired outcomes are achieved. The relationships among these components are shown below for the Presence and Participation domain. Throughout this document outcome domains are represented by shaded diamonds, outcomes are represented by shaded circles and indicators are represented by shaded triangles. Sources of data, represented below as small dots, are not fully developed for the eight domains in this document.

Outcomes for the eight domains are presented on pages 4 and 5. Indicators are listed for each outcome within outcome domains on pages 8-15. Sample sources of data for the Contribution and Citizenship outcome domain are presented on page 17. Within this document, outcome domains, outcomes, and indicators are assigned letters and numbers to help in referencing them. These letters and numbers do not imply a hierarchical order of any kind.




OUTCOME DOMAIN
OUTCOME
Presence and Participation
Is present in school
Participates
Completes school
Accommodation and Adaptation
Makes adaptations, acommodations, or compensations necessary to achieve outcomes in each of the major domains
Demonstrates family support and coping skills
Physical Health
Makes healthy lifestyle choices
Is aware of basic safety, fitness, and health care needs
Is physically fit
Responsibility and Independence
Gets about in the environment
Is responsible for self
Contribution and Citizenship
Complies with school and community rules
Knows the significance of voting and procedures necessary to register and vote
Volunteers


OUTCOME DOMAIN
OUTCOME
F
Academic and Functional Literacy
F1
Demonstrates competence in communication
F2
Demonstrates competence in problem-solving strategies and critical thinking skills
F3
Demonstrates competence in math, reading and writing skills
F4
Demonstrates competence in other academic and nonacademic skills
F5
Demonstrates competence in using technology
G
Personal and Social Adjustment
G1
Copes effectively with personal challenges, frustrations, and stressors
G2
Has a good self image
G3
Respects cultural and individual differences
G4
Gets along with other people
H
Satisfaction
H1
Student satisfaction with high school experience
H2
Parent/guardian satisfaction with the education that students received
H3
Community satisfaction with the education that students received

Possible Indicators for School Completion Outcomes

Indicators are numbers or other symbolic representations of outcomes. They can be viewed over time to gather information on trends. At the national and state levels, indicators usually are presented as percentages or rates.

State and local district personnel who are interested in specific students can easily translate the indicators presented here into individually-based indicators. A guide to these translations is included in the supporting document entitled *State and School District Development of Educational Outcomes and Indicators: A Guide for Self Study* (see p. 25).

Lists of possible indicators for the school completion outcomes, which were identified through the consensus-building process, are presented on the next eight pages, one outcome domain per page. It is important to think of these as a framework within which outcomes, indicators, and sources of data can be generated.

= OUTCOME = INDICATOR

Presence and Participation

A1. Is present in school

- a. Absenteeism rate during last year of school (differentiated for reasons of suspension, medical/health, truancy, and other)
- b. Percent of students excluded from their typical school placement
- c. Percent of students attending residential settings (in and out of state), separate schools, separate classes

A2. Participates

- a. Percent of time students participate actively in general education classrooms during last year of school
- b. Percent of time students participate actively in community activities during last year of school
- c. Percent of time students participate actively in extracurricular activities during last year of school
- d. Percent of students who participate in district, state, and national testing programs
- e. Percent of students who have had employment experience (through school programs) before leaving school

A3. Completes school

- a. Percent of students who graduate with a diploma
- b. Percent of students who earn a certificate of completion/attendance
- c. Percent of students who earn a GED diploma
- d. Percent of students who drop out

= OUTCOME

= INDICATOR

B1 DOMAIN

Accommodation and Adaptation

B1 Makes adaptations, acommodations, or compensations necessary to achieve outcomes in each of the major domains

- a1 Percent of students who demonstrate adaptation/ accommodation/compensation skills required to move about in their environments
- b1 Percent of students who demonstrate adaptation/ accommodation/compensation skills required to communicate
- c1 Percent of students who demonstrate adaptation/ accommodation/compensation skills required to read
- d1 Percent of students who demonstrate adaptation/ accommodation/compensation skills required to participate in activities in home, school, and community environments
- e1 Percent of students who demonstrate adaptation/ accommodation/compensation skills required to manage personal needs in home, school, and community environments

B2 Demonstrates family support and coping skills

- a2 Percent of families prepared to cope with student's needs after student leaves school
- b2 Percent of families knowledgeable about community resources and programs needed by student
- c2 Percent of families participating in the education of their children

= OUTCOME = INDICATOR

C1 Makes healthy lifestyle choices

- A. Percent of students who indicate that they use tobacco products
- B. Percent of students who make good nutritional choices
- C. Percent of students who have abused alcohol or drugs in the past year
- D. Percent of students who indicate they have had unprotected sex in the past year
- E. Percent of students who elect to participate in sports, recreational, and/or exercise activities

C2 Is aware of basic safety, fitness, and health care needs

- A. Percent of students who are aware of basic safety precautions and procedures
- B. Percent of students who are aware of basic fitness needs
- C. Percent of students who are aware of basic health care needs
- D. Percent of students who know when, where, and how to access health care

C3 Is physically fit

- A. Percent of students who are physically fit

= OUTCOME = INDICATOR

DOMAIN

Responsibility and Independence

D1 Gets about in the environment

- a. Percent of students who can get to and from a variety of destinations
- b. Percent of students who know how to access community services (e.g., rehabilitation, counseling, employment, health, etc.)
- c. Percent of students who complete transactions (shopping, banking, drycleaning, etc.) in the community
- d. Percent of students with a driver's license

D2 Is responsible for self

- a. Percent of students who can prioritize and set goals and persevere toward them
- b. Percent of students who manage personal care and safety
- c. Percent of students who effectively advocate for themselves
- d. Percent of students who are likely to engage in lifelong learning

= OUTCOME = INDICATOR

E
DOMAIN

Contribution and Citizenship

E1 **Complies with school and community rules**

- a — Percent of students who have been suspended or subjected to other disciplinary actions
- b — Percent of students who have been repeatedly suspended or subjected to disciplinary actions
- c — Vandalism rate and magnitude
- d — Crime rate and magnitude

E2 **Knows the significance of voting and procedures necessary to register and vote**

- a — Percent of students who know the significance of voting
- b — Percent of students who know the procedures necessary to register and vote

E3 **Volunteers**

- a — Percent of students who volunteer time to school, civic, community, or nonprofit activities

= OUTCOME

= INDICATOR

F
DOMAIN

Academic and Functional Literacy

F1 **Demonstrates competence in communication**

- a — Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication

F2 **Demonstrates competence in problem-solving strategies and critical thinking skills**

- a — Percent of students who demonstrate problem-solving and critical thinking skills

F3 **Demonstrates competence in math, reading and writing skills**

- a — Percent of students who demonstrate competence in math necessary to function in their current home, school, work, and community environments
- b — Percent of students who demonstrate competence in math necessary to function in their next environment
- c — Percent of students who demonstrate competence in reading necessary to function in their current home, school, work, and community environments
- d — Percent of students who demonstrate competence in reading necessary to function in their next environment
- e — Percent of students who demonstrate competence in writing necessary to function in their current home, school, work, and community environments
- f — Percent of students who demonstrate competence in writing necessary to function in their next environments

F4 **Demonstrates competence in other academic and nonacademic skills**

- a — Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their current home, school, work, and community environments
- b — Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their next environment

F5 **Demonstrates competence in using technology**

- a — Percent of students who currently apply technology to enhance functioning in home, school, work, and community environments
- b — Percent of students who demonstrate competence in using technology to function in their next environment

= OUTCOME = INDICATOR

G2 DOMAIN

Personal and Social Adjustment

G1 Copes effectively with personal challenges, frustrations, and stressors

- a1 Percent of students who cope effectively with personal challenges, frustrations, and stressors
- b1 Percent of students whose behavior reflects an acceptance of the consequences for behavior (e.g., makes restitution)

G2 Has a good self image

- a2 Percent of students who perceive themselves as worthwhile
- b2 Percent of students who perceive themselves as competent

G3 Respects cultural and individual differences

- a3 Percent of students whose behavior demonstrates acceptance of cultural and individual differences

G4 Gets along with other people

- a4 Percent of students who have friends and are a part of a social network
- b4 Percent of students who demonstrate skill in interacting and in making decisions in social situations, including during interpersonal conflict
- c4 Percent of students who engage in productive group work

) = OUTCOME

= INDICATOR

H# DOMAIN

Satisfaction

H1 Student satisfaction with high school experience

- a1 Percent of students who are satisfied with level of achievement
- b1 Percent of students who are satisfied with what was provided in school
- c1 Percent of students who are satisfied with high school experience
- d1 Percent of students who are satisfied with progress toward achieving educational outcomes

H2 Parent/guardian satisfaction with the education that students received

- a2 Percent of parents/guardians who are satisfied with level of achievement
- b2 Percent of parents/guardians who are satisfied with what was provided in school
- c2 Percent of parents/guardians who are satisfied with high school experience
- d2 Percent of parents/guardians who are satisfied with progress toward achieving educational outcomes
- e2 Percent of parents/guardians who are satisfied with the extent to which student is prepared to live in society

H3 Community satisfaction with the education that students received

- a3 Percent of community (teachers, policymakers, employers, general public) satisfied with students' level of achievement
- b3 Percent of community (teachers, policymakers, employers, general public) satisfied with what was provided in school
- c3 Percent of community (teachers, policymakers, employers, general public) satisfied with students' progress toward achieving educational outcomes

Steps Toward Identifying Sources of Data for Indicators

NCEO staff and advisors are currently in the process of identifiying possible sources of data for each of the indicators that has been identified through the consensus building process. Examples of possible sources of data for the seven indicators within the Contribution and Citizenship domain are provided on this page. These were generated by NCEO staff. Before listing the possible sources of data for all outcome indicators in the NCEO model, experts will be asked to provide their ideas about the best data sources.

DOMAIN

Contribution and Citizenship

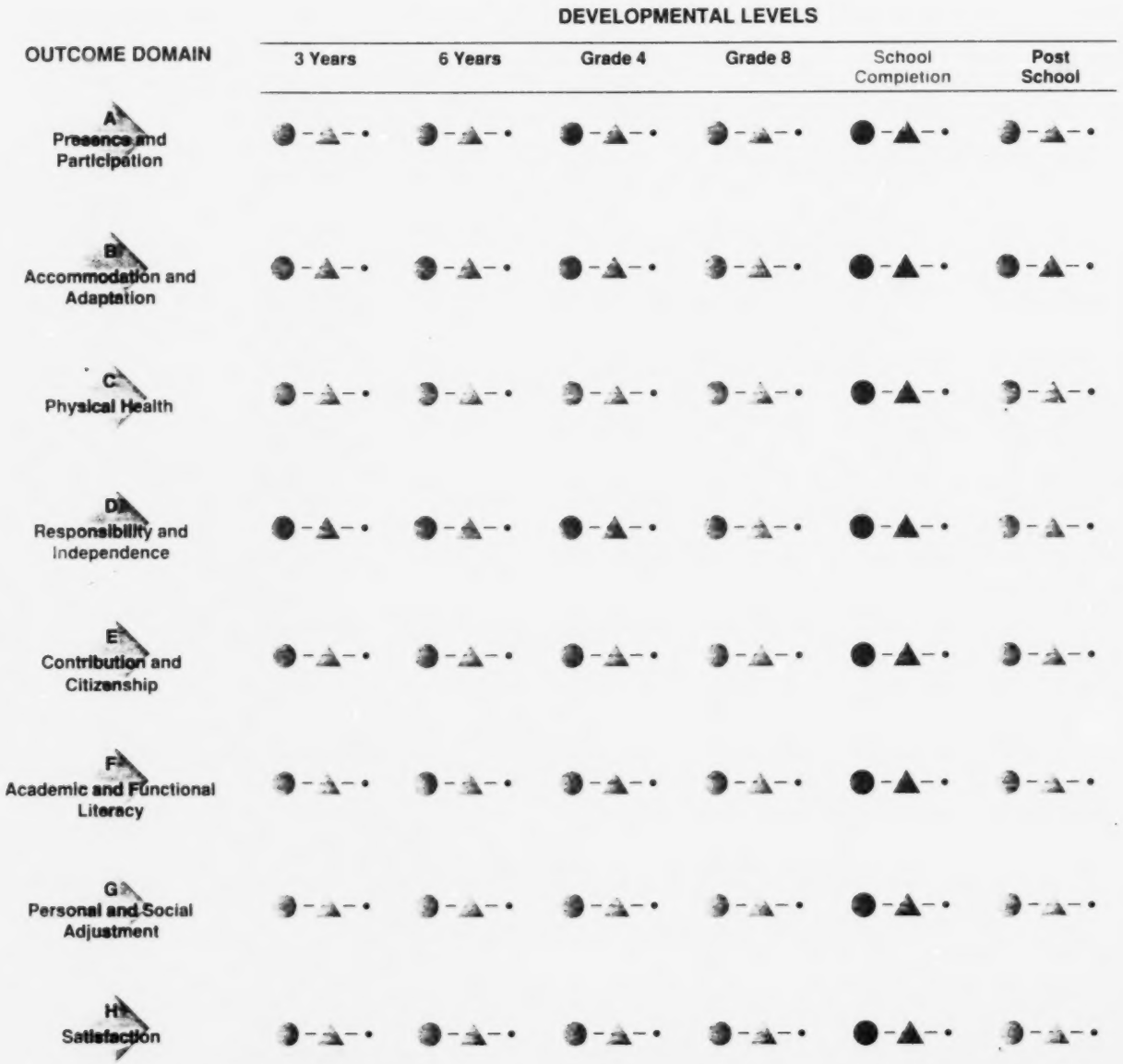
OUTCOME	INDICATOR	POSSIBLE SOURCE OF DATA
E1 Complies with school and community rules	a. Percent of students who have been suspended or subjected to other disciplinary actions	• School records • Community records
	b. Percent of students who have been repeatedly suspended or subjected to disciplinary actions	• School records
	c. Vandalism rate and magnitude	• School records of vandalism • Community records of vandalism
	d. Crime rate and magnitude	• Records of numbers of arrests, incarcerations, and specific crimes • Records of recidivism and crime seriousness
E2 Knows the significance of voting and procedures necessary to register and vote	a. Percent of students who know the significance of voting	• Scores on civics tests
	b. Percent of students who know the procedures necessary to register and vote	• School records of percent of students of legal voting age who are registered to vote
E3 Volunteers	a. Percent of students who volunteer time to school, civic, community, or nonprofit activities	• School or community records

Identifying and Defining the Important Outcomes of Education

The model and lists of domains, outcomes, and indicators that have been presented in this document are viewed as providing a framework and examples. From these examples, states, districts, and schools can begin to identify and define the important outcomes of education for all of their students.

This document is a summary of the results of consensus-building exercises focused on the time of *school completion* only. NCEO is using the same consensus building process to identify outcomes and indicators for the developmental levels indicated in the figure below.

These will be available in the same format as the School Completion outcomes and indicators.



Contributors to the Development of School Completion Outcomes

Many individuals contributed to the development of the conceptual model, outcomes, and indicators presented here. Stakeholders participated in an intensive process of consensus building using a computerized multiattribute analysis procedure. Other contributors including NCEO's Advisory Committee members, read and reacted to various working papers, model prototypes, and questionnaires. With extreme gratitude we recognize and thank these contributors.

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Supporting Documents

The following documents are available for the reader who is interested in additional information on the model and its underlying assumptions, the process through which the current model and indicators were developed, or how states and school districts apply the model to meet their needs.

A Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 1) July, 1991.

This paper discusses terminology and assumptions underlying the development of a model of outcomes for children and youth with disabilities. It presents alternative models, identifies unresolved issues, and represents a preliminary statement of models and issues.

Responses to Working Paper 1: Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Synthesis Report 3) June, 1992.

This paper is a synthesis of the responses from a large number of individuals who were invited to react to the educational outcomes model and the assumptions, definitions, and unresolved issues presented in Working Paper 1. Patterns in responses to specific issues including support, concerns, suggested refinements, and sample comments are included.

An Evolving Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 2) August, 1992.

This paper is an extension of Working Paper 1, with revised definitions and assumptions, and an updated model of educational and enabling outcomes for students with disabilities. An initial list of indicators of each outcome domain is included.

Steps and Activities in the Development of a Conceptual Model of Educational Outcomes and Indicators (in preparation).

This paper summarizes the steps and processes used in developing NCEO's conceptual model, indicators, and sources of data.

The Development of Educational Outcomes and Indicators for Students Completing School: Report on the Consensus Process (in preparation).

This paper details the consensus process used by NCEO and the results of a final consensus meeting on outcomes and indicators at the time of school completion.

State and School District Development of Educational Outcomes and Indicators: A Guide for Self Study (in preparation).

This guide provides state and district personnel with information on how to use NCEO's model in developing a set of outcomes and indicators.

Information on these materials can be obtained by calling NCEO Publications (612-626-1530) or by writing:

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350 Elliott Hall
75 East River Road
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